

CLAIMS

1. A method for detecting a copied international mobile equipment identity in a mobile system in which at least one international mobile subscriber identity and a mobile equipment identity is associated with a mobile station, the method comprising

(i) creating a database containing records which each contain a mobile equipment identity associated with a mobile station and at least one mobile subscriber identity,

(ii) the mobile station transmitting the mobile equipment identity associated with the mobile station and at least one mobile subscriber identity,

(iii) checking whether there is a record in the database, which contains a mobile equipment identity corresponding to the mobile equipment identity transmitted by the mobile station, but whose mobile subscriber identity does not correspond to the mobile subscriber identity the mobile station has transmitted, and if yes, producing at least a signal indicating that the mobile equipment identity is possibly a copied one.

2. A method as claimed in claim 1, **wherein** if the database contains a record which contains a mobile equipment identity corresponding to the mobile equipment identity transmitted by the mobile station, but whose mobile subscriber identity does not correspond to that transmitted by the mobile station, the operation of the mobile station is prevented.

3. A method as claimed in claim 2, **wherein** step (iii) is performed when the mobile station registers into the mobile system.

4. A method as claimed in any one of the preceding claims, **wherein** step (iii) is performed when the mobile station updates its location.

5. A method as claimed in any one of the preceding claims, **wherein** step (iii) is performed at predefined intervals.

6. A method as claimed in claim 1, **wherein** the database is created in the home location register.

7. A mobile system comprising
means for receiving an international mobile equipment identity and
at least one international mobile subscriber identity from at least one mobile
station,
a database containing records, each containing a mobile equipment
identity associated with a mobile station and at least one mobile subscriber
identity,
first means for checking whether the database contains a record
which contains a mobile equipment identity corresponding to the mobile
equipment identity transmitted by the mobile station, but whose mobile
subscriber identity does not correspond to that transmitted by the mobile
station, and
second means responsive to the first means to produce a signal
indicating that the mobile equipment identity is possibly a copied one.

8. A mobile system as claimed in claim 7, comprising means
responsive to the first means for preventing the use of the mobile station.

9. An element of a mobile network, which comprises a database,
containing records, each record containing an international mobile equipment
identity associated with a mobile station and at least one international mobile
subscriber identity.